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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* TIMOTHY RUSSELL KLOS, RANDALL STUART LEET,  
GARY JAY MARTENS, SUSAN MARY MERZ, WILLIAM SKILES  
BOWLING, and TERRENCE DAVID ALAN

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Appeal 2009-005964  
Application 09/853,722  
Technology Center 2600

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Decided: November 12, 2009

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Before JOHN C. MARTIN, JOSEPH F. RUGGIERO, and KARL D.  
EASTHOM, *Administrative Patent Judges*.

RUGGIERO, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from the Final Rejection of claims 1-38, which are all of the pending claims. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Brief (filed January 17, 2008), the Answer (dated April 23, 2008), and the Reply Brief (filed June 23, 2008) for the respective details. Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but chose not to make in the Briefs have not been considered and are deemed to be waived. *See 37 C.F.R. § 41.37(c)(1)(vii).*

*Appellants' Invention*

Appellants' invention relates to the provisioning of digital subscriber line service (DSL) for a subscriber in a telecommunications network. A provisioning server identifies and assigns multiple facilities required to implement a service order including at least a remote terminal connectable to a terminal of the DSL subscriber. The provisioning server determines an interface for each of the facilities which are configured, based on interface specific instructions from the provisioning server, to implement the service order. (*See generally Spec. ¶¶ [0009]-[0012]]*).

Claim 1 is illustrative of the invention and reads as follows:

1. A method for provisioning a digital subscriber line (DSL) service for a subscriber in a telecommunications network, the method comprising:  
receiving a service order at a provisioning server, the service order requesting implementation of the DSL service and comprising provisioning data;

identifying a plurality of facilities assigned to implement the service order based on the provisioning data, the plurality of facilities comprising at least a remote terminal connectable to a terminal of the DSL subscriber;

determining an interface corresponding to each of the plurality of assigned facilities, each interface converting at least a portion of the provisioning data into a specific protocol corresponding to the assigned facility; and

configuring each of the plurality of facilities, using the corresponding interface, to implement the service order based on the provisioning data.

*The Examiner's Rejections*

The Examiner's Answer cites the following prior art references:

Byers	US 5,926,472	Jul. 20, 1999
Sundaresan	US 6,463,079 B2	Oct. 8, 2002 (filed Jul. 2, 1999)
Gidwani	US 6,640,239 B1	Oct. 28, 2003 (filed Nov. 10, 1999)

Claims 1-7, 18, 19, 22, and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sundaresan in view of Gidwani.

Claims 8-17, 20, 21, and 24-38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sundaresan in view of Gidwani and Byers.

ISSUES

The pivotal issues before us are whether Appellants have demonstrated that the Examiner erred in determining:

- a) that Sundaresan discloses a provisioning server which identifies facilities assigned to a DSL service order that includes provisioning data, and configures the facilities to implement the service order based on the provisioning data, and
- b) if so, the obviousness to the ordinarily skilled artisan of combining the facility interface determining teachings of Gidwani with Sundaresan.

## FINDINGS OF FACT

The record supports the following relevant findings of fact (FF) by a preponderance of the evidence:

1. Sundaresan discloses (Figs. 1 and 11, col. 5, ll. 21-32, and col. 19, l. 7 to col. 20, l. 40) a telecommunication system in which a request by a subscriber for implementation of DSL service is received at server OSS 190.
2. Sundaresan also discloses (Fig. 11, col. 19, l. 7-col. 20, l. 67) the identification of facilities that are assigned to implement the service order request based on provisioning data included in the request.
3. Sundaresan further discloses (Fig. 17, col. 25, l. 42-col. 27, l. 12) that server OSS 190 operates to allocate specific ports on a digital subscriber line access multiplexer (DSLAM) for user connection, orders local loops from an incumbent local exchange carrier (ILEC), tests the loops, and confirms the local loop connection to the user if the tests are successful.
4. Sundaresan also discloses the provisioning of permanent virtual circuits (PVCs) from a user location to a corresponding target location. As disclosed by Sundaresan (Fig. 19, col. 28, l. 56-col. 29, l. 67), the PVC

provisioning includes determination of the switch and port to which a determined DSLAM connects, allocation of a PVC identifier between the target location and the switch, and issuing of commands to configure the DSLAM in accordance with the PVC identifiers.

5. Gidwani discloses (Figs. 2 and 2a, col. 2, ll. 18-60) an integrated telecommunication system which incorporates multi-DSL configurational capability on a per-line basis in which a given subscriber line interface can be configured for multiple DSL standards using software configurational control.

6. Gidwani further discloses (col. 7, ll. 8-63) a “dynamic provisioning” feature in which a user subscriber can configure appropriate service facilities from the subscriber side of the system in accordance with the type of selected DSL service.

7. Gidwani’s “dynamic provisioning” feature is described (Figs. 5, 6a, 6b, col. 29, l. 11 to col. 30, l. 38) as including an interface controller 442 which provides the requisite facility switching interfaces for the various types of DSL services.

8. Gidwani further discloses (Fig. 5, 6a, 6b, col. 29, l. 11 to col. 30, l. 38) that multiple subscriber line interfaces are provided by the configuration of switches for the various types of DSL services.

## PRINCIPLES OF LAW

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in

*Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966) (stating that 35 U.S.C. § 103 leads to three basic factual inquiries: the scope and content of the prior art, the differences between the prior art and the claims at issue, and the level of ordinary skill in the art). “[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Furthermore,

‘there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness’ . . . [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

*KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

## ANALYSIS

### *Independent claims 1 and 18*

With respect to the Examiner’s 35 U.S.C. § 103(a) rejection of appealed independent claims 1 and 18 based on the combination of Sundaresan and Gidwani, Appellants’ arguments in response assert a failure to set forth a *prima facie* case of obviousness since all of the claim limitations are not taught or suggested by the applied prior art references. Appellants’ arguments (App. Br. 15-17) initially focus on the alleged deficiency of Sundaresan in disclosing the actual provisioning of digital subscriber line (DSL) services as claimed. According to Appellants (*id.*),

Sundaresan, rather than actually implementing requested services, is merely directed to procedures involved in the pre-qualifying of service orders such as determining user location, availability of service at a user location, etc.<sup>1</sup>

We do not find Appellants' arguments to be persuasive of any error in the Examiner's stated position. While Appellants' arguments (App. Br. 16) direct attention to the flow chart illustration in Figure 9 of Sundaresan which ends (step 960) with a notification to a user as to whether requested DSL services can be provided, we agree with the Examiner (Ans. 23-24) that ample evidence exists in Sundaresan to support the conclusion that actual implementation, i.e., provisioning, of requested services is disclosed.

For example, Sundaresan discloses (FF 3) that server OSS 190 functions to allocate specific ports on a digital subscriber line access multiplexer (DSLAM) for user connection, orders local loops from an incumbent local exchange carrier (ILEC), tests the loops, and confirms the local loop connection to the user if the tests are successful. Further, Sundaresan discloses the provisioning of permanent virtual circuits (PVCs) from a user location to a corresponding target location. As disclosed by

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<sup>1</sup> At pages 7-9 of the Reply Brief, Appellants argue that Sundaresan does not disclose any provisioning of a remote terminal having an interface connected to a DSL subscriber, i.e., there is no provisioning beyond the DSLAM illustrated in Figure 18 of Sundaresan. This argument, however, was raised for the first time on appeal in the Reply Brief and is therefore deemed to be waived. *See Optivus Tech., Inc. v. Ion Beam Appl'n S.A.*, 469 F.3d 978, 989 (Fed. Cir. 2006) (“[A]n issue not raised by an appellant in its opening brief ... is waived.”) (citations and quotation marks omitted); *see also Ex parte Scholl*, No. 2007-3653, slip op. at n.13 (BPAI Mar. 13, 2008) (informative), *available at* <http://www.uspto.gov/web/offices/dcom/bpai/its/fd073653.pdf> (same).

Sundaresan (FF 4), the PVC provisioning includes determination of the switch and port to which a determined DSLAM connects, allocation of a PVC identifier between the target location and the switch, and issuance of commands to configure the DSLAM in accordance with the PVC identifiers.

We further find to be unpersuasive Appellants' contention (App. Br. 19-20) that Gidwani provides a teaching only of determining interfacing for facilities that have already been provisioned, and not as part of the facility provisioning process as claimed. We agree with the Examiner (Ans. 25) that Gidwani teaches (FF 6) a "dynamic provisioning" feature in which a user subscriber can configure appropriate service facilities from the subscriber side of the system in accordance with the type of selected DSL service. The "dynamic provisioning" feature of Gidwani is further illustrated in Figures 5, 6a, and 6b, along with the accompanying description at col. 29, line 11 through column 30, line 38, which describes the operation of system interface controller 442 which provides the requisite facility switching interfaces for the various types of DSL services.

With the above discussion in mind, we find, Appellants' arguments (App. Br. 20; Reply Br. 2-6) to the contrary notwithstanding, no error in the Examiner's finding of the obviousness to the skilled artisan of applying the interface determining features of Gidwani to the DSL provisioning system disclosed by Sundaresan. We are further of the view that, although we find no error in the Examiner's proposed combination of Sundaresan and Gidwani, the DSL provisioning system disclosed by Sundaresan satisfies all of the requirements of independent claims 1 and 18 since a skilled artisan would have recognized and appreciated that the port allocation and switching circuit determination features of Sundaresan would correspond to

the claimed interface determining and facility configuring features.

Evidence of such recognition is provided by Gidwani's disclosure (FF 8) of the multiple subscriber line interfaces provided by the configuration of switches for the various types of DSL services.

For the above reasons, since it is our opinion that the Examiner has established a *prima facie* case of obviousness which has not been overcome by any convincing arguments from Appellants, the Examiner's 35 U.S.C. § 103(a) rejection of independent claims 1 and 18 is sustained.

*Independent claims 8, 24, 31, and 38*

We also sustain the Examiner's obviousness rejection of independent claims 8, 24, 31, and 38. We find no error in the Examiner's application of the optical concentrator device teachings of Byers to the combination of Sundaresan and Gidwani. Appellants' arguments (App. Br. 21, Reply Br. 4-5) rely on those made against independent claims 1 and 18, which we have found to be unpersuasive.

*Dependent claims 2-5, 19-21, and 32-35*

The Examiner's obviousness rejection of dependent claims 2-5, 19-21, and 32-35 is sustained as well. Appellants' arguments (App. Br. 21-22; Reply Br. 9-10) do not convince us of any error in the Examiner's finding (Ans. 6, 9, 13, 19, 20, and 26) that Sundaresan provides a disclosure (Fig. 19, col. 28, l. 56-col. 29, l. 67) of an interconnecting path between the facilities assigned to a service order and the subscriber terminal, as well as

disclosing (Fig. 17, col. 25, l. 52-col. 26, l. 30) the provisioning of a particular DSL service based on requested service in a service order.

*Dependent claims 6, 17, 30, and 36*

Appellants' arguments (App. Br. 24-25, Reply Br. 9-10) do not convince us of any error in the Examiner's finding (Ans. 7, 13, 17, 20, 29, and 30) that Sundaresan discloses (Figs. 9 and 17, col. 15, ll. 55-65, col. 25, ll. 59-67) the profile identification features of the rejected claims. Accordingly, the Examiner's obviousness rejection of dependent claims 6, 17, 30, and 36 is sustained.

*Dependent claims 7, 9-11, 22, 23, 25, 26, 30, and 37*

We also sustain the Examiner's obviousness rejection of dependent claims 7, 9-11, 22, 23, 25, 26, 30, and 37. Appellants' arguments (App. Br. 22; Reply Br. 9-10) do not convince us of any error in the Examiner's finding (Ans. 7, 9, 12, 16, 17, 20, 27, and 28) that Sundaresan provides a disclosure (Figs. 5 and 12A, col. 8, ll. 5-26 and col. 19, ll. 29-34) of error identification and error message display features, as well as disclosing (Figs. 17-19, col. 18, 25-53, col. 25, ll. 59-66, and col. 28, l. 66 through col. 29, l. 46) the claimed service order formatting and validating features.

*Dependent claims 12-16 and 27-29*

Appellants' arguments (App. Br. 23-24, Reply Br. 9-10) do not convince us of any error in the Examiner's finding (Ans. 11-13, 17, 20, 28, and 28) that Sundaresan provides a disclosure (Fig. 19, col. 28, l. 66-col. 29, l. 60) of the virtual path connection features, as well as disclosing (col. 17, ll. 22-31) the claimed provisional step enqueueing and dequeuing features. Accordingly, the Examiner's obviousness rejection of dependent claims 12-16 and 27-29 is sustained.

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## CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude that Appellants have not shown that the Examiner erred in rejecting appealed claims 1-38 for obviousness under 35 U.S.C. § 103.

## DECISION

The Examiner's 35 U.S.C. § 103 rejection of appealed claims 1-38 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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